



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,264	08/14/2006	Roland Wursche	291789US0PCT	6049
22850 7590 01/07/2010 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER FREEMAN, JOHN D				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
01/07/2010		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

# Office Action Summary

**Application No.**

10/589,264

**Applicant(s)**

WURSCHE ET AL.

**Examiner**

John Freeman

**Art Unit**

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 October 2009.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) 1-5 and 8-13 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 6 and 7 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/CDC)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 26 October 2009 has been entered.

### ***Election/Restrictions***

2. For clarity, the examiner notes monomer unit (I) and monomer unit (VI) are the elected species for (a) and (b) respectively. The other monomeric units are withdrawn from consideration.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oenbrink et al. (US 5,637,408) in view of Fischer et al. (US 5,189,100) and Childers et al. (US 2,820,773).

5. Oenbrink discloses a multilayer composite comprising (col 1 In 55-63):

- (I) a layer of polyamide,
- (II) a layer of polyalkyl methacrylate, bonded via
- (III) a coupling layer.

The coupling layer comprises (i) up to 96% by weight of acrylate-derived units (col 4 In 35-45), and (iv) 0.2-25% by weight of anhydride-based units (col 4 In 66-col 5 In 10).

6. Oenbrink is silent with the addition of ABS to the coupling layer.

7. Fischer discloses polymer blends of (A) copolymer comprising units of methyl methacrylate and maleic anhydride, (B) another copolymer, and (C) ABS copolymer (col 3 In 1-38). The ABS copolymer comprises 0.5-99.5% of the blend (col 3 In 35). Fischer teaches the ABS copolymer is added to improve the impact strength of the overall blend (col 6 In 31-47).

Art Unit: 1794

8. Childers discloses ABS copolymer having improved impact strength (col 1 ln 15-20). The copolymer comprises as little as 20% of rubber compared to the acrylonitrile-styrene copolymer (col 1 ln 37-46). The acrylonitrile comprises as little as 10-75% of said acrylonitrile-styrene copolymer, and therefore comprises 2.5-60% of the overall ABS copolymer. As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

9. At the time of the invention, it would have been obvious to one of ordinary skill in the art to add ABS copolymer to the methacrylate-anhydride layer taught by Oenbrink to improve its impact strength. It further would have been obvious to use ABS copolymers having amounts of rubber and acrylonitrile as presently claimed to improve its impact strength.

10. Regarding claim 7:

11. Oenbrink teaches the polyalkyl methacrylate layer (II) comprises pigments (col 5 ln 42).

12. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ries et al. (US 6,680,093) in view of Fischer et al. (US 5,189,100) and Childers et al. (US 2,820,773).

13. Ries disclose a multilayer composite comprising (claim 1):

- (I) a layer of polyamide,
- (II) a layer comprising polyester or fluoropolymer, bonded via
- (III) an adhesive layer.

The adhesive layer comprises an alkyl acrylate polymer comprising (i) up to 100% of acrylate-derived units, and (iv) 0-20% by weight of anhydride-based units (claims 4-6). The composite can be in a sheet form (col 7 ln 36-41).

14. Ries is silent with the addition of ABS to the coupling layer.

15. Fischer discloses polymer blends of (A) copolymer comprising units of methyl methacrylate and maleic anhydride, (B) another copolymer, and (C) ABS copolymer (col 3 ln 1-38). The ABS copolymer

Art Unit: 1794

comprises 0.5-99.5% of the blend (col 3 ln 35). Fischer teaches the ABS copolymer is added to improve the impact strength of the overall blend (col 6 ln 31-47).

16. Childers discloses ABS copolymer having improved impact strength (col 1 ln 15-20). The copolymer comprises as little as 20% of rubber compared to the acrylonitrile-styrene copolymer (col 1 ln 37-46). The acrylonitrile comprises as little as 10-75% of said acrylonitrile-styrene copolymer, and therefore comprises 2.5-60% of the overall ABS copolymer. As set forth in MPEP 2144.05, in the case where the claimed range "overlap or lie inside ranges disclosed by the prior art", a *prima facie* case of obviousness exists, *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

17. At the time of the invention, it would have been obvious to one of ordinary skill in the art to add ABS copolymer to the methacrylate-anhydride layer taught by Ries to improve its impact strength. It further would have been obvious to use ABS copolymers having amounts of rubber and acrylonitrile as presently claimed to improve its impact strength.

18. Regarding claim 7:

19. Layer (II) comprises polyester (claim 1).

### ***Response to Arguments***

20. Applicant's arguments with respect to claims 6-7 have been considered but are moot in view of the new ground(s) of rejection.

21. The examiner appreciates Applicant's efforts to clarify the terms of the claims. Previous rejections under 35 USC 112 are withdrawn in light of Applicant's amendments.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Freeman whose telephone number is (571)270-3469. The examiner can normally be reached on Monday-Friday 7:30-5:00PM EST (First Friday off).

Art Unit: 1794

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571)272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Freeman  
Examiner  
Art Unit 1794

/John Freeman/  
Examiner, Art Unit 1794

/Callie E. Shosho/  
Supervisory Patent Examiner, Art Unit 1794